

CLAIMS

What is claimed is:

1. A nail spacing verification assembly, for use in a nail loading assembly coupled to a nail gun, comprising:

a first probe coupled with the nail loading assembly, the first probe for engaging nails in a collated nail strip and determining the spacing of the nails in the collated nail strip; and

a second probe coupled with the nail loading assembly and operationally coupled with the first probe, the second probe for engaging with the nails after they have passed the first probe,

wherein the second probe in operational concert with the first probe allows the nail to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

2. The nail spacing verification assembly of claim 1, wherein the first probe further comprises a first armature coupled with a first axle, wherein the axle enables rotational movement of the first armature and couples the first armature with the nail loading assembly.

3. The nail spacing verification assembly of claim 1, wherein the second probe further comprises a second armature coupled with a second axle, wherein the axle enables rotational movement of the second armature and couples the second armature with the nail loading assembly.

4. The nail spacing verification assembly of claim 1, wherein the nail loading assembly is an adjustable angle magazine.

5. The nail spacing verification assembly of claim 4, wherein the adjustable

angle magazine further comprises a universal adapter assembly.

6. The nail spacing verification assembly of claim 4, wherein the adjustable angle magazine further comprises a pick-off pivot assembly.
7. The nail spacing verification assembly of claim 4, wherein the adjustable angle magazine further comprises an articulating pusher assembly.
8. The nail spacing verification assembly of claim 4, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.
9. The nail spacing verification assembly of claim 4, wherein the adjustable angle magazine is a top-load magazine or side-load magazine.
10. The nail spacing verification assembly of claim 1, wherein the nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
11. The nail spacing verification assembly of claim 1, wherein the nail gun further comprises a clutch assembly.

12. A nail spacing verification assembly, for use in a nail loading assembly coupled to a nail gun, comprising:

a first spring loaded probe coupled with the nail loading assembly, the first spring loaded probe for engaging nails in a collated nail strip and determining the spacing of the nails in the collated nail strip; and

a second probe coupled with the nail loading assembly and operationally coupled with the first spring loaded probe, the second probe for engaging with the nails after they have passed the first spring loaded probe,

wherein the second probe in operational concert with the first spring loaded probe allows the nails to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

13. The nail spacing verification assembly of claim 12, wherein the first probe further comprises a first sleeve coupled with a first axle, the first sleeve is further coupled with a spring assembly which couples with a first armature, wherein the axle enables rotational movement of the first sleeve and first armature and couples the first sleeve with the nail loading assembly.

14. The nail spacing verification assembly of claim 12, wherein the second probe further comprises a second armature coupled with a second axle, wherein the axle enables rotational movement of the second armature and couples the second armature with the nail loading assembly.

15. The nail spacing verification assembly of claim 12, wherein the nail loading assembly is an adjustable angle magazine.

16. The nail spacing verification assembly of claim 15, wherein the adjustable angle magazine further comprises a universal adapter assembly.

17. The nail spacing verification assembly of claim 15, wherein the adjustable angle magazine further comprises a pick-off pivot assembly.
18. The nail spacing verification assembly of claim 15, wherein the adjustable angle magazine further comprises an articulating pusher assembly.
19. The nail spacing verification assembly of claim 15, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.
20. The nail spacing verification assembly of claim 15, wherein the adjustable angle magazine is a top-load magazine or side-load magazine.
21. The nail spacing verification assembly of claim 12, wherein the nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
22. The nail spacing verification assembly of claim 12, wherein the nail gun further comprises a clutch assembly.

23. An adjustable angle magazine for use with a nail gun, comprising:

a housing including a first end and a second end, the housing for storing and providing nails in a collated nail strip to a nail driving assembly of the nail gun;

an adjustment assembly disposed proximal to the second end of the housing, the adjustment assembly for affixing the position of the housing relative to the nail gun;

a universal adapter assembly coupled with the first end of the housing, the universal adapter assembly for pivotally coupling with the nail driving assembly; and

a nail spacing verification assembly disposed upon the housing, the nail spacing verification assembly for engaging the nails in the housing,

wherein the nail spacing verification assembly allows the nails to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

24. The adjustable angle magazine of claim 23, wherein the nail spacing verification assembly is a first nail spacing verification assembly comprising:

a first probe coupled with the housing, the first probe for engaging nails in a collated nail strip and determining the spacing of the nails in the collated nail strip; and

a second probe coupled with the housing and operationally coupled with the first probe, the second probe for engaging with the nails after they have passed the first probe,

wherein the second probe in operational concert with the first probe allows the nail to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

25. The adjustable angle magazine of claim 23, wherein the nail spacing verification assembly is a second nail spacing verification assembly comprising:

a first spring loaded probe coupled with the housing, the first spring loaded probe for engaging nails in a collated nail strip and determining the spacing of the nails in the collated nail strip; and

a second probe coupled with the housing and operationally coupled with the first spring loaded probe, the second probe for engaging with the nails after they have passed the first spring loaded probe,

wherein the second probe in operational concert with the first spring loaded probe allows the nails to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

26. The adjustable angle magazine of claim 23, further comprising a pick-off pivot assembly.
27. The adjustable angle magazine of claim 23, further comprising an articulating pusher assembly.
28. The adjustable angle magazine of claim 23, further comprising a nail shank pawl assembly.
29. The adjustable angle magazine of claim 23, wherein the adjustable angle magazine is a top-load magazine or side-load magazine.
30. The adjustable angle magazine of claim 23, wherein the nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
31. The adjustable angle magazine of claim 23, wherein the nail gun further

comprises a clutch assembly.

32. An adjustable angle nail gun, comprising:
  - a handle including a first end and a second end, the second end coupled with a fastening assembly;
  - a nail driving assembly coupled with the first end of the handle, the nail driving assembly including a driver blade, the nail driving assembly for driving nails in a collated nail strip;
  - an adjustable angle nose casting assembly coupled with the nail driving assembly, the adjustable angle nose casting assembly for receiving the nail and enabling the operational engagement of the driver blade with the nail;
  - an adjustable angle magazine including a first end coupled with a universal adapter assembly for pivotally coupling with the adjustable angle nose casting assembly and an adjustment assembly disposed proximal to a second end of the adjustable angle magazine, the adjustment assembly for coupling with the fastening assembly, the adjustable angle magazine for storing and providing the nails to the adjustable angle nose casting assembly,
  - a nail spacing verification assembly disposed upon the housing, the nail spacing verification assembly for engaging the nails in the housing,  
wherein the nail spacing verification assembly allows the nails to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

33. The adjustable angle nail gun of claim 32, wherein the nail spacing verification assembly is a first nail spacing verification assembly comprising:
  - a first probe coupled with the adjustable angle magazine, the first probe for engaging nails in a collated nail strip and determining the spacing of the nails in the collated nail strip; and
  - a second probe coupled with the adjustable angle magazine and operationally coupled with the first probe, the second probe for engaging with the nails after they

have passed the first probe,

wherein the second probe in operational concert with the first probe allows the nail to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

34. The adjustable angle nail gun of claim 32, wherein the nail spacing verification assembly is a second nail spacing verification assembly comprising:

a first spring loaded probe coupled with the adjustable angle magazine, the first spring loaded probe for engaging nails in a collated nail strip and determining the spacing of the nails in the collated nail strip; and

a second probe coupled with the adjustable angle magazine and operationally coupled with the first spring loaded probe, the second probe for engaging with the nails after they have passed the first spring loaded probe,

wherein the second probe in operational concert with the first spring loaded probe allows the nails to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

35. The adjustable angle nail gun of claim 32, wherein the adjustable angle magazine further comprises a pick-off pivot assembly.

36. The adjustable angle nail gun of claim 32, wherein the adjustable angle magazine further comprises an articulating pusher assembly.

37. The adjustable angle nail gun of claim 32, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.

38. The adjustable angle nail gun of claim 32, wherein the adjustable angle

magazine is a top-load magazine or side-load magazine.

39. The adjustable angle nail gun of claim 32, wherein the adjustable angle nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
40. The adjustable angle nail gun of claim 32, wherein the adjustable angle nail gun further comprises a clutch assembly.

41. A nail spacing verification assembly for use with a nail loading assembly of a nail gun, comprising:

means for determining the spacing between nails of a collated nail strip in the nail loading assembly and allowing the nails to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

42. The nail spacing verification assembly of claim 41, wherein the means for determining spacing and allowing advancement is a nail spacing verification assembly disposed upon the nail loading assembly.

43. The nail spacing verification assembly of claim 41, wherein the nail loading assembly is an adjustable angle magazine.

44. The nail spacing verification assembly of claim 43, wherein the adjustable angle magazine further comprises a universal adapter assembly.

45. The nail spacing verification assembly of claim 43, wherein the adjustable angle magazine further comprises a pick-off pivot assembly.

46. The nail spacing verification assembly of claim 43, wherein the adjustable angle magazine further comprises an articulating pusher assembly.

47. The nail spacing verification assembly of claim 43, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.

48. The nail spacing verification assembly of claim 43, wherein the adjustable angle magazine is a top-load magazine or side-load magazine.

49. The nail spacing verification assembly of claim 41, wherein the nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
50. The nail spacing verification assembly of claim 41, wherein the nail gun further comprises a clutch assembly.

51. A method of using a nail gun, comprising:

loading a collated nail strip into a nail loading assembly coupled with a nail driving assembly of the nail gun;

engaging the collated nail strip with a nail spacing verification assembly disposed upon the nail loading assembly; and

determining if the collated nail strip provides nails in the correct position for use by the nail gun,

wherein the nail spacing verification assembly allows the collated nail strip to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.

52. The method of claim 51, wherein the nail loading assembly is an adjustable angle magazine.

53. The method of claim 52, wherein the adjustable angle magazine further comprises a pick-off pivot assembly.

54. The method of claim 52, wherein the adjustable angle magazine further comprises an articulating pusher assembly.

55. The method of claim 52, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.

56. The method of claim 51, wherein the nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.